

## Chapter 5. Who is infected with HIV but does not yet know?

The U.S. Centers for Disease Control and Prevention (CDC) has recently estimated that about one-quarter of HIV infected persons nationwide do not know they are infected<sup>1</sup> (previous editions of the Epidemiologic Profile estimated that about one-third of HIV-infected persons either did not know they were infected or were not in care). People unaware of their status do not access HIV-related care and treatment, and, therefore, are unable to experience the benefits of these services including improved health, better quality of life and longer survival. Additionally, they are not able advised regarding further prevention of HIV transmission. Applying the national estimate to the number of people living with HIV/AIDS in Massachusetts reported to the HIV/AIDS Surveillance Program (N = 14,160), and adjusting for completeness of reporting, would yield an estimated 5,500 people who are infected with HIV and do not know it, and 2,500 who know their status but have not been reported. Therefore, the estimated total number of people currently living with HIV/AIDS in MA, including people known to the system as well as those yet to be identified, is in the range of 21,000 – 23,000 people.

People who are first diagnosed with HIV infection (that they may have had for a very long time) at the same time that they get diagnosed with AIDS are considered cases that are termed “simultaneously diagnosed”. In the data that follow, a person is considered to have been simultaneously diagnosed with HIV infection and AIDS if both the initial HIV infection and AIDS diagnosis occurred within a two month period. The profile of people who are simultaneously diagnosed with HIV infection and AIDS highlights a population that may have first learned about their HIV status late in the progression of HIV disease. It is likely that people who are simultaneously diagnosed with HIV and AIDS have been infected for more time prior to learning their HIV status than people who learn their status before being diagnosed with AIDS. As such, the profile of people who are simultaneously diagnosed with HIV infection and AIDS provides a good approximation of the profile of people who are infected but do not know it. This group is one of the target populations for HIV counseling and testing efforts.

When using these data, one must keep in mind the confounding effects of place of birth. People born outside the US may have learned of their HIV status in their native country and then moved to Massachusetts (or elsewhere in the US) to receive care; as opposed to moving to Massachusetts, becoming infected with HIV and then learning about their HIV status late in the course of HIV disease. There is no way to differentiate between these two scenarios in the HIV case data, although the latter represents a missed opportunity for Massachusetts care providers and the former does not. When reviewing the proportion of simultaneous diagnoses by race/ethnicity one should note the differences in the distribution of place of birth by race/ethnicity. Fifty-eight percent of

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<sup>1</sup> Fleming PL, Byers RH, Sweeney PA, Daniels D, Karon JM, Janssen RS. HIV prevalence in the United States, 2000. Abstract 11. 9<sup>th</sup> Conference on Retroviruses and Opportunistic Infections, Seattle, Washington, February 24-28, 2002

Blacks simultaneously diagnosed with HIV infection and AIDS from 2000 to 2002 were non-US born compared to 32% of Hispanics and 9% of Whites.

<b>Table 5.1 People Diagnosed with HIV Infection and AIDS within Two Months and All People Diagnosed with HIV Infection by Gender, Race/Ethnicity, and Mode of Exposure: MA, 2000 – 2002</b>			
	<b>HIV and AIDS Diagnosed within 2 Months</b>	<b>All HIV Infection Diagnoses</b>	<b>% Diagnosed with HIV and AIDS within 2 Months</b>
<b>Gender:</b>	<b>N</b>	<b>N</b>	<b>%</b>
Male	623	2,047	30%
Female	241	891	27%
<b>Race/Ethnicity:</b>	<b>N</b>	<b>N</b>	<b>%</b>
White (non-Hispanic)	333	1,169	28%
Black (non-Hispanic)	314	985	32%
Hispanic	193	684	28%
Asian/Pacific Islander	23	72	32%
Amer. Indian/Alaska Native	1	5	20%
<b>Exposure Mode<sup>1</sup>:</b>	<b>N</b>	<b>N</b>	<b>%</b>
Male-to-male sex (MSM)	220	893	25%
Injection Drug Use (IDU)	146	577	25%
MSM/IDU	14	57	25%
Heterosexual Sex	151	446	34%
Other	10	14	71%
Pres. Heterosexual Sex	246	683	36%
No Identified Risk	77	268	29%
<b>TOTAL<sup>2</sup></b>	<b>864</b>	<b>2,938</b>	<b>29%</b>
<sup>1</sup> See the Glossary for an explanation of exposure mode categories			
<sup>2</sup> Totals include people of unspecified race/ethnicity			
Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/03			

- From 2000 to 2002, 864 people were diagnosed with HIV infection and AIDS within 2 months of each other, representing 29% of the 2,938 diagnoses of HIV infection during this time period.
- A slightly higher proportion of males than females were diagnosed with HIV infection and AIDS within 2 months (30% vs.27%).

- Across race/ethnicity, Blacks and Asian/Pacific Islanders represented the highest proportion of HIV infection and AIDS diagnoses within a 2 month period, at 32%, between 2000 and 2002.
- People who were reported as being exposed to HIV through heterosexual sex, and those presumed exposed through heterosexual sex, have a higher proportion of simultaneous HIV infection and AIDS diagnoses than people exposed through other modes.

*Note: For interpretation of the category “presumed heterosexual,” see note on page 17.*

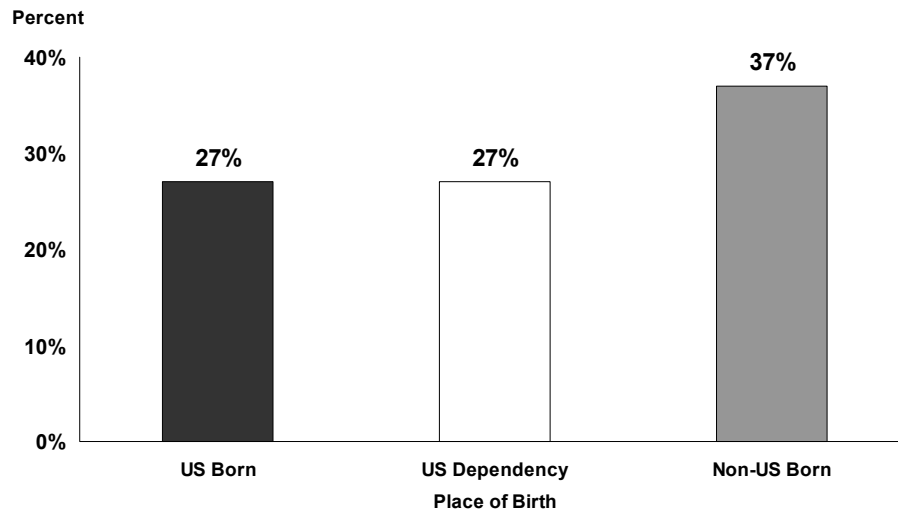
**Table 5.2 People Diagnosed with HIV Infection and AIDS within Two Months and All People Diagnosed with HIV Infection by Place of Birth and Age at HIV/AIDS Simultaneous Diagnosis and HIV Diagnosis: MA, 2000-2002**

	HIV and AIDS Diagnosed within 2 Months	All HIV Infection Diagnoses	% Diagnosed with HIV and AIDS within 2 Months
<b>Place of Birth:</b>	<b>N</b>	<b>N</b>	<b>%</b>
US	487	1,830	27%
US-Dependency	82	300	27%
Non-US	295	808	37%
<b>Age at Diagnosis:</b>	<b>N</b>	<b>N</b>	<b>%</b>
0-12	-- <sup>1</sup>	-- <sup>1</sup>	-- <sup>1</sup>
13-19	7	55	13%
20-24	34	168	20%
25-29	65	345	19%
30-34	128	536	24%
35-39	213	681	31%
40-44	174	509	34%
45-49	119	322	37%
50+	121	319	38%
<b>TOTAL</b>	<b>864</b>	<b>2,938</b>	<b>29%</b>

<sup>1</sup> Percentages calculated from a denominator and numerator of less than 5 are unstable and therefore not presented  
 Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/03

- Thirty-seven percent of people born outside the US who were diagnosed with HIV infection in Massachusetts between 2000 and 2002 were also diagnosed with AIDS within 2 months, compared to 27% of people born in the US or a US dependency.
- People age 50 years and above had the highest proportion of HIV infection and AIDS diagnoses within a 2 month period from 2000-2002 at 38%.

**Figure 5.1 Proportion of People Diagnosed with HIV Infection and AIDS within Two Months by Place of Birth: MA, 2000-2002**



Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 7/1/03

**Table 5.3 People Diagnosed with HIV Infection and AIDS within Two Months and All People Diagnosed with HIV Infection by Gender and Race/Ethnicity: MA, 2000 – 2002**

	<b>HIV and AIDS Diagnosed within 2 Months</b>	<b>All HIV Infection Diagnoses</b>	<b>% Diagnosed with HIV and AIDS within 2 Months</b>
<b>Males by Race/Ethnicity:</b>	<b>N</b>	<b>N</b>	<b>%</b>
White (non-Hispanic)	275	959	29%
Black (non-Hispanic)	186	538	35%
Hispanic	144	473	30%
Asian/Pacific Islander	17	57	30%
<b>Total Male<sup>1</sup></b>	<b>623</b>	<b>2,047</b>	<b>30%</b>
<b>Females by Race/Ethnicity:</b>	<b>N</b>	<b>N</b>	<b>%</b>
White (non-Hispanic)	58	210	28%
Black (non-Hispanic)	128	447	29%
Hispanic	49	211	23%
Asian/Pacific Islander	6	15	40%
<b>Total Female<sup>1</sup></b>	<b>241</b>	<b>891</b>	<b>27%</b>

<sup>1</sup> Totals include American Indian/Alaska Native and people of unspecified race/ethnicity  
 Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 7/1/03

- Thirty-five percent of Black males were diagnosed with HIV infection and AIDS within 2 months from 2000-2002 compared to 29% of White males and 30% of Hispanic males.
- Hispanic females had the lowest proportion of simultaneous HIV infection and AIDS diagnoses across race/ethnicity, at 23%.